

- Fig. 4. A and B, two spaces containing a mixture of small *Chlorochytrium* segments and of developing diatoms. C and D, two other spaces with very few green fission-products, but with many much elongated diatoms of the *Nitzschia* type.
- Fig. 5. A, an epidermal cell full of *Chlorochytrium*. B, two other cells containing *Chlorochytrium* which seems about to divide into fission-products. C, another epidermal cell containing *Chlorochytrium* which has divided into several nearly equal segments. D, an epidermal cell containing many small segments which had assumed a yellowish colour and were beginning to elongate. E, an epidermal cell containing diatoms mixed with some green fission-products. F, another epidermal cell containing a number of diatoms, but only two green *Chlorochytrium* fission-products. All these diatoms resembled small *Naviculae*.
- Fig. 6 shows diatoms developing from the fission-products of *Chlorochytrium Lemnae*. A, four contiguous spaces, of which the upper one contained a mixture of minute fission-products and of diatoms, that on the left diatoms in an early stage of development, while the other two were densely packed with more mature *Naviculae*. B, two large contiguous spaces containing an intimate mixture of fission-products and of developing diatoms. C, another space containing some fission-products and a number of diatoms larger than are usually to be found within the sub-epidermal spaces of the ivy-leaf duckweed.

IX.—Descriptions of Three new Batrachians from Tonkin.

By G. A. BOULENGER, F.R.S.

A COLLECTION made by Mr. H. Fruhstorfer, of Berlin, in the Man-Son Mountains, Tonkin, altitude 3000–4000 feet, and purchased from him by the Trustees of the British Museum, contains, in addition to several little-known frogs (*Leptobrachium carinense*, Blgr., *L. pelodytoides*, Blgr., *Hyla simplex*, Bttgr., *Rana Guentheri*, Blgr., *R. graminea*, Blgr., *R. nigrovittata*, Blyth, *R. Ricketti*, Blgr., *Oxyglossus Martensii*, Peters, *Rhacophorus verrucosus*, Blgr.), examples of three new species, one of which is even entitled to be regarded as the type of a new genus.

OPHRYOPHRYNE, gen. nov.

Pupil horizontal. Mouth small, toothless, inferior. Tongue pear-shaped, adherent, entire, swollen and cup-shaped behind. Tympanum distinct. Fingers free, toes nearly free, the tips not dilated. Outer metatarsals united. Omosternum cartilaginous; sternum with a slender bony style. Sacral vertebra with very strongly dilated diapophyses and one condyle for articulation with the coccyx.

Like *Cophophryne*, Blgr., this genus presents an interesting

combination of characters, agreeing with the Bufonidæ in the absence of teeth, whilst in other respects it shows such remarkable points in common with Pelobatidæ, e. g. *Leptobrachium* and *Megalophrys*, that one must regard it as on the whole nearer to the latter than to the true toads: another instance of the over-estimation of dentition as a character by which to define families in the Batrachia.

Ophryophryne microstoma.

Head small; snout very short, obliquely truncate, projecting considerably beyond the mouth; canthus rostralis distinct, loreal region vertical; interorbital space as broad as the upper eyelid; a horn-like dermal appendage on the superciliary edge; eye rather small, a little larger than the very distinct tympanum. Limbs slender; fingers and toes with slightly swollen tips, without subarticular tubercles; first finger not extending quite as far as second; palmar and plantar tubercles indistinct. The tibio-tarsal articulation reaches the shoulder or the tympanum. Skin with small warts; above with delicate symmetrical glandular lines, which form two **V**'s on the head and anterior part of the back and an **H** on the posterior part. Greyish, with darker symmetrical markings; black spots on the sides of the body and limbs; a white wart on each side of the breast.

Four specimens, the largest (a gravid female) measuring 55 millim. from snout to vent.

Rana nasica.

Vomerine teeth in two short oblique series between the choanæ. Head a little longer than broad, strongly depressed, with pointed, very prominent snout; canthus rostralis sharp, loreal region deeply concave; nostril equally distant from the eye and the tip of the snout; interorbital space nearly as broad as the upper eyelid; tympanum very distinct, $\frac{2}{3}$ to $\frac{3}{4}$ diameter of eye. Fingers rather slender, first extending beyond second; toes entirely webbed; tips of fingers and toes dilated into well-developed disks; subarticular tubercles small but very prominent; a small oval inner and a very small round outer metatarsal tubercle. Tibio-tarsal articulation reaching the tip of the snout or a little beyond. Skin smooth, granulate on the pelvic region; a narrow glandular dorso-lateral fold. Greyish olive or brown above, with or without blackish spots; canthus rostralis, temple, and outer edge of glandular lateral fold blackish; upper lip from below

the nostril white; tympanum reddish; limbs with numerous regular dark cross-bars; lower parts white, uniform or dotted with brown. Male without humeral gland, with a large external vocal sac on each side of the throat.

From snout to vent 46 millim.

Four male specimens.

Closely allied to *R. alticola*, Blgr., which differs in the less prominent snout and the less deeply concave loreal region.

Rhacophorus corticalis.

Vomerine teeth in two small oblique groups between the choanæ. Head large, very strongly depressed; snout rounded, with prominent canthus, and very oblique slightly concave loreal region; interorbital space as broad as the upper eyelid; tympanum as large as the eye. Fingers free, ending in very large disks; toes entirely webbed, the disks smaller than those of the fingers. Tibio-tarsal articulation reaching the anterior border of the eye. Skin above very rough with large irregular warts studded with small granules; lower parts granular; large conical tubercles on the back of the thighs near the vent. Dark olive above, marbled with blackish; sides and lower parts yellow, spotted or marbled with black; limbs with dark bars, extending across the lower surface of the leg. Male without vocal sac.

From snout to vent 70 millim.

Two specimens, male and female.

Very closely allied to *R. leprosus*, Schleg.; distinguished by a still more depressed head, a larger tympanum, and the presence of conical warts on the back of the thighs.

X.—*On Two new Muridæ from Smyrna.*

By OLDFIELD THOMAS.

THE British Museum is indebted to Mr. W. Griffith Blackler for examples of a mouse and a gerbille from Smyrna which appear to represent new forms of their respective genera.

Mus mystacinus smyrnensis, subsp. n.

Similar to the typical *M. mystacinus*, Danf. & Alst.*, and to the very closely allied *M. epimelas*, Nehr.†, but with a pure white belly.

* P. Z. S. 1877, p. 279.

† SB. Ges. nat. Fr. Berl. 1902, p. 2.